## Rec'd PCT/PTO 15 MAR 2005

#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

#### (19) World Intellectual Property Organisation International Bureau



#### (43) International Publication Date 8 April 2004 (08.04.2004)

### **PCT**

# (10) International Publication Number WO 2004/029160 A1

(51) International Patent Classification<sup>7</sup>: 3/12, 3/10

C09C 1/00,

- (21) International Application Number: PCT/EP2003/009801
- (22) International Filing Date:

4 September 2003 (04.09.2003)

(25) Filing Language:

German

(26) Publication Language:

German

- . ,
- (30) Priority Data: 102 43 438.7

18 September 2002 (18.09.2002) D

- (71) Applicant (for all designated States except US): MERCK PATENT GMBH [DE/DE]; Frankfurter Strasse 250, 64293 Darmstadt (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): HUBER, Adalbert [DE/DE]; Bonhöfferstrasse 9, 64625 Bensheim (DE). ENTENMANN, Marc [DE/DE]; Pestalozzistrasse 21, 64342 Seeheim/Jugenheim (DE). SCHAUER, Thadeus [DE/DE]; Waldenser Strasse 56, 75382 Althengstett (DE).
- (74) Common Representative MERCK PATENT GMBH; Frankfurter Strasse 250, 64293 Darmstadt (DE).

- (81) Designated states (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated states (regional): ARIPO Patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

#### (54) Title: EFFECT PIGMENTS THAT ARE <u>SURFACE-MODIFIED</u> WITH <u>LCST AND/OR UCST POLYMERS</u>

(57) Abstract: The present invention relates to surface-modified effect pigments based on flake-form substrates which are distinguished by the fact that they are sheathed with one or more layers of immobilised LCST and/or UCST polymers. The invention furthermore relates to a process for the production of the surface-modified effect pigments and to the use thereof in surface coatings, water-borne coatings, powder coatings, paints, printing inks, security printing inks, plastics, concrete, in cosmetic formulations, in agricultural sheeting and tarpaulins, for the laser marking of papers and plastics, as light protection, as pigment for corrosion protection and for the preparation of pigment compositions and dry preparations.